

Amendments to the Claims

Listing of Claims:

Claims 1 - 13 (canceled).

Claim 14 (new). A control unit, comprising:

a voltage source having an output outputting an output voltage;

a sensor resistor having a value being dependent on its temperature; and

a reference resistor connected in series with said sensor resistor, the output voltage of said voltage source dropping at said sensor resistor and said reference resistor in a connected state, said reference resistor being dimensioned such that a maximum power loss of said sensor resistor is within a required value range of said sensor resistor.

Claim 15 (new). The control unit according to claim 14, wherein said voltage source amplifies an input voltage.

Claim 16 (new). The control unit according to claim 15, wherein said voltage source has a limiter for limiting the output voltage.

Claim 17 (new). The control unit according to claim 16,
wherein said limiter is a Zener diode.

Claim 18 (new). The control unit according to claim 14,
wherein said voltage source includes first, second and third transistors with a
common emitter and each having a base and a collector, a base current of said
first transistor being a dependent on a control signal applied to the control unit,
said base of said second transistor connected to said collector of said first
transistor, and said base of said third transistor is connected to said collector of
said second transistor.

Claim 19 (new). The control unit according to claim 18,
wherein said voltage source has a low-pass filter disposed between said first and
second transistors.

Claim 20 (new). The control unit according to claim 19,

further comprising a voltage supply connected to said
voltage source;

wherein said low-pass filter includes:

a capacitor connected to said collectors of said first and second transistors
and also to said voltage supply;

a resistor connected both to said collector of said first transistor and also to said voltage supply;

a further resistor connected both to said collector of said second transistor and also to said voltage supply.

Claim 21 (new). The control unit according to claim 14, wherein said reference resistor is connected both to said output of said voltage source and to said sensor resistor.

Claim 22 (new). The control unit according to claim 14, further comprising:

a first output, the control unit outputting a variable characterizing a voltage drop by said sensor resistor and said reference resistor at said first output; and

a second output, the control unit outputting a variable characterizing a potential between said sensor resistor and said reference resistor at said second output.

Claim 23 (new). The control unit according to claim 22, further comprising a voltage divider having an input side receiving the voltage drop over said sensor resistor and said reference resistor, said voltage divider having an output side connected to said first output.

Claim 24 (new). The control unit according to claim 23, further comprising a switch, said switch being used to control whether the voltage drop at said sensor resistor and said reference resistor is applied to said voltage divider on said input side or a supply voltage of an evaluation unit.

Claim 25 (new). A control device, comprising:

a control unit, including:

a voltage source having an output outputting an output voltage;

a sensor resistor having a value being dependent on its temperature;

a reference resistor connected in series with said sensor resistor, the output voltage of said voltage source dropping at said sensor resistor and said reference resistor in a connected state, said reference resistor being dimensioned such that a maximum power loss of said sensor resistor is within a required value range of said sensor resistor; and

an evaluation unit generating a control signal and connected to said control unit.

Claim 26 (new). The control device according to claim 25, wherein said evaluation unit has a regulator, said regulator controlling a regulated variable being a voltage drop over said sensor resistor and said reference resistor and

outputting an actuating signal being the control signal.